REMARKS

Status of the Claims

Claims 1-12 and 19-36 are pending

Claims 1-12 and 19-36 currently stand rejected.

I. Amendments

Claims 1-6, 20, 23 and 35 have been amended to more particularly point out what the Applicants consider to be their invention. The amendments to the claims are supported throughout the specification. The amended claims do not contain any new matter.

II. Declaration filed under 37 CFR 1.131

Applicants make note of the Office's response regarding the declaration under 37 CFR 1.131. The refusal to accept the declaration is considered by the Applicants to be improper because the declaration was sufficient to support the genus claims as required. The overall statement made by the declarants, and not just the one piece of evidence showing that at least one species of the genus was made prior to the file date, should have been sufficient to remove the reference as prior art. The examiner is not giving proper respect to the statements of

the declarants and the difference between determining an optimum production level and a generally acceptable range, but unoptimized amount for all balls typically known as a range. However, the declaration is moot because Lutz does not teach the Applicants claimed invention.

III. Claim rejections under 35 U.S.C. 103

Claims 1-12 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Lutz et al. (USPN 6,475,104) in view of Nakahara et al. (USPN 4,714,253). Claims 1-12 as previously presented were not obvious in light of the combination of references as currently claimed. Applicants further amend the claims to make it clear to the patent office the differences between the cited art and the Applicant's claimed invention to avoid the requirement of filing an appeal over a misunderstanding of the claimed elements.

The rejection of claims 1-12 as obvious Lutz is improper because it fails to teach each and every element of the reject claims. The patent office disregards the teaching of the Lutz reference requiring that the filler is placed into the thread layer as a liquid surface coating. Furthermore, the Lutz reference is completely silent

regarding both the thread specific gravity and the thread layer specific gravity. Lutz's only example for the thread provided is polyisoprene that is known to have a specific gravity of 0.95, and not the Applicant's claimed requirement of 1.2.

The complete teaching of Lutz specification that the examiner has cited at column 8, lines 46-65 is reproduced below:

> Fillers may be used to adjust the density, elastic modulus, mold release, and/or melt flow index of any layer of the golf ball, **although preferably fillers are used to adjust the density of the impregnated wound layer**. A density adjusting filler may be used to control the moment of inertia, and thus the initial spin rate of the ball and spin decay. For example, fillers may be present in an amount from 0 up to about 200 phr based on 100 phr of the impregnation material. **A density adjusting filler according to the invention preferably is a filler that has a specific gravity of at least about 0.05 and more preferably at least about 0.5 higher or lower than the specific gravity of the impregnation material**. Particularly preferred density adjusting fillers have specific gravities that are higher than the specific gravity of the resin composition by about 0.2 or more, more preferably by about 2 or more. **The density-adjusting fillers for use in the invention preferably have a specific gravity in the range of about 0.6 to 20.** These density-adjusting fillers may also incidentally modify the elastic modulus or mold release properties of the material to which they are added. (emphasis added)

Lutz teaches that *"[f]illers may be used to adjust the density . . of any layer of the golf ball."* However, the Applicants claim the specific gravity of the thread itself as 1.2 and not the specific gravity of the layer. Regardless, Lutz does not teach the specific gravity of the layer and it is thus improper to state that it does. The *"density-adjusting fillers"* of Lutz are added to the **impregnation material** or thread layer by a liquid coating process that fills the voids and thus it is the Lutz reference that does not have any specific gravity requirements for fillers or threads, and not the Applicant's specification.

Lutz's requirement of filling of the voids in the windings with liquid filler material precludes filling the voids with the cover material. This difference completely changes the golf ball's characteristics and playability, which removes a majority of the benefits of improved feel with a thread wound ball but retains the high processing costs. The use of low gravity fillers as taught by Lutz would destroy the properties of the thread if compounded to make a specific gravity of 1.2 and thus does not provide motivation to create the Applicants claimed invention.

The Applicants have amended the claims to clarify that the thread is compounded in a mixer to achieve a specific gravity of 1.2 and that it is not coated with a liquid as taught by Lutz.

The examiner is correct on page 4 of the June 2, 2004 office action that the Applicants specification provides a ***"thread layer"*** example in table 2 that has a specific gravity of 0.777, which is completely different from the Applicants claimed ***at least one thread's specific gravity***. This is just one example of a ball within the claimed range, which is supported by a range provided in the specification. It is not required to show additional examples or every possible example to enable a range claimed in a specification. To increase of the moment of inertia of the ball without filling in the voids in the windings layer requires a higher specific gravity thread. The Applicants' specification teaches using a higher specific gravity thread and thus it is not "***a design choice***" because the applicant discloses a critical need for such a value with higher specific gravity threads providing increasing benefits. The specification is clear that the desire for a higher specific gravity windings layer is

important for the attaining improved properties of spin and distance in the ball.

Furthermore, claim 35 is the only claim that includes the limitation drawn toward the specific gravity of the thread layer. The Applicant's specification on page 9, line 11, teaches that the specific gravity of the thread layer, not the thread used to make the layer, has a specific gravity of 0.7 to 1.25. The thread is disclosed to have a specific gravity greater than 1.2 at page 7, line 8. The voids in the thread layer of the Applicant's claimed ball are filled with the cover material that is later disposed over the threads that can not be achieved with the teachings of the Lutz ball.

The voids in Lutz's ball are filled with a liquid penetrant that contains **ANY** filler of a specific gravity just greater than that of the thread used and the liquid is cured before the application of the cover. The Lutz ball acts and feels more like a two-piece ball because of the filling in of the voids with a material other than the cover, thus defeating the purpose of a wound ball and thus teaching away from the Applicant's claimed invention.

The Lutz specification teaches this throughout the body of the patent as at column 9, lines 16-23:

> *For example, using a density-adjusting filler* ***having a higher density than the impregnation material,*** *golf balls can be prepared according to the present invention* ***having a high density wound layer having higher resilience than conventional wound layers.*** ***Using a high density liquid material*** *can decrease the density requirement of the center of the ball* ***about which the impregnation material is disposed.*** *This consequently adjusts the moment of inertia. (emphasis added)*

The Applicants' claims as now amended should even more clearly require that the thread must be compounded in a mixer, which results in a uniform specific gravity throughout the thread. Lutz only teaches a surface penetration of the liquid, and not the Applicants' claimed thread.

The argument of lack of criticality of a specific gravity of 1.2 for the thread is not a legitimate method to produce a prima facia case of obviousness required by the law. Furthermore, this statement is not supported by the specification that clearly discusses the criticality of using a higher specific gravity than 1.2 in the thread to maximize benefits of the thread layers.

The Nakahara et al '253 patent discloses a solid dual core ball and teaches away from the use of thread windings in column 1, lines 15-16 stating that *"[a] two-piece solid ball developed to improve the durability of thread wound*

golf ball produced by covering an integrally molded solid core with a cover." Nakahara then teaches the production of a solid two-piece core, not a wound core, which Nakahara teaches away from as not being of sufficient durability. Furthermore, the Lutz patent teaches in column 10, lines 23-24 that *"[a]lternatively, the fluid filled center of fluid and shell can be a solid center of one or more layers (not depicted)."* Therefore, one skilled in the art when combining the cited references would either eliminate the thread layer of Lutz or use the dual core of Nakahara, but not produce the Applicant's claimed invention based on the teachings of Nakahara's dual core that have different physical property requirements and processing.

The comments regarding design choice and wide range of benefit is not relevant to the obviousness rejection, nor does it overcome the patent office's failure to form a valid prima facie case of obviousness. The Applicants' specification makes it clear that the benefit of having a higher specific gravity outer layer is applicable over a range of values with the benefit being the greatest when the thread windings have the highest specific gravity. The performance of the ball is improved when the thread has a higher specific gravity then a conventional thread without

using low specific gravity fillers. Applicants respectfully request the reconsideration of the obviousness rejection and allowance of claims 1-12 because each and every element of the Applicant's claims are not taught without resorting to improper hindsight reasoning.

Claims 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morgan et al (USPN 6,695,717). The Applicants request a closer review of the Morgan et al `717 patent that should not be considered as prior art. The Morgan `717 patent application was filed almost TWO YEARS AFTER the Applicants invention was filed and thus should not be considered to be a prior art reference against the application. Applicants respectfully request reconsideration and removal of the obviousness rejection of claims 19-22.

Claims 23-25, 27-28 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lutz et al (USPN 6,475,104) in view of Nakahara et al (USPN 4,714,253) and Kakiuchi et al (USPN 5,846,142). The cited combination fails to teach the Applicants' claimed invention as discussed previously above. The claims have been amended further to make it even clearer that the Applicants claimed thread is compounded to achieve a specific gravity and is not coated thread. Applicants would like to point out that the rejection of the claim is based upon the elements only

of the Applicants claims only and not the contents of the specification. The Applicants claim a thread having a specific gravity of 1.2, which is wound to form a layer, and not a layer with a specific gravity of 1.2 in claims 23-25, 27-28 and 33. Only claim 35 contains the limitation of the specific gravity of the thread layer.

The examiner correctly points out that fillers are used to adjust any layer, but not the specific thread itself as claimed by the Applicants. The Applicants invention modifies the actual thread, which is not a layer, but used to form a layer. Lutz specifically describes it as an impregnated wound layer and in column 9, lines 16-22 states that ``***using a density-adjusting filler having a higher density than the impregnation material***, *golf balls can be prepared according to the present invention having a high density wound* ***layer having higher resilience than conventional wound layers***. ***Using a high density liquid material*** *can decrease the density requirement of the center of the ball about which the impregnation material is disposed.*'' (emphasis added) As discussed above, Lutz teaches the adjustment of layers, not threads, using a high density liquid material to adjust the gravity. The only way that the Lutz winding layer would have a higher resilience than a conventional layer would be from the absence of

fillers from within the threads of the Lutz winding layer, which is the opposite of the Applicants' claimed windings and windings layer that uses high specific gravity fillers. The listing of fillers by Lutz is moot because it teaches adding to the liquid fillers to adjust the density of the liquid and then coating the thread layer with the liquid, and not to adjust the weight of the thread by compounding as claimed by the Applicants.

Nakahara et al does not teach a thread wound ball, but a dual core ball. Furthermore, as discussed above Nakahara teaches away from the used of wound balls because of reduced durability in comparison to a solid three-piece ball it discloses.

Kakiuchi et al teaches the addition of only low gravity fillers to the threads as correctly stated by the examiner. Kakiuchi et al when combined with Lutz would not produce the Applicants claimed invention because neither teaches the addition of high gravity fillers compounded into the thread. Lutz when combined with Kakiuchi instead would motivate one skilled in the art to remove fillers from the body of the thread and replace them with a liquid coating. Lutz does not require the use of high gravity fillers as claimed by the Applicants, which if were used would be detrimental to the Applicants' thread performance by reducing rubber content. Lutz teaches the use of **any filler** having a specific gravity just greater than the specific gravity of

the conventional thread because the liquid coating has no function other than increasing weight. The Lutz coating of the thread layer does not effect the composition of the thread and thus it is not concerned with the use of a high gravity filler to prevent loss of properties of the thread as required by the Applicants' claims. The combination of cited references fails to teach each and every required limitation of claims 23-25, 27-28 and 33. A prima facie case of obviousness is not produced with the use of Kakiuchi et al alone or in combination with Lutz or Nakahara, which teaches away from the use of the Applicants' claimed threads. Regarding the moment of inertia of claim 25, Applicants would like to point out that the statement on page 6 of the office action that ``*golf balls with a moment of inertia in the above range are known in the art (i.e applicants Table 2, Ball #1)*'' discusses a solid three piece ball, NOT a wound ball. The Applicants requests that the statement be retracted by the examiner because it is inaccurate. The cited prior art contained in the chart does not even apply to the ball claimed by the Applicant, because the moment of inertia is vastly different between balls of different construction and thus could NOT be an admission. The claimed moment of inertia is not known for other three-piece wound balls and not applicable to other constructions.

Whether or not disclosures in two or more prior art references are properly combinable depends, generally, on whether there is some teaching, suggestion or motivation in those references or elsewhere in the prior art to suggest the desirability of making the combination. The mere fact that it is possible to find isolated disclosures having some individual features that might be combined in a manner that would result in the claimed invention is not enough. There must be something in the prior art itself that suggests the desirability of the claimed combination. It is improper to pick and choose among the individual parts of various prior art references as a mosaic to recreate a facsimile of the claimed invention using the inventors' disclosure as an instruction book or blue print on how to reconstruct the prior art. To do so is impermissible hindsight reasoning. Additionally, the problem confronted by the inventor must be considered in determining whether it would have been obvious to combine the references in that manner to solve a particular problem. See *In Re Sang Su Lee*, 277 F.3d 1338, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002) and *In Re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596, 1599 (Fed. Cir. 1988).

The Office in this instance attempts to use the discredited and improper rational of obvious to try to provide the motivation to produce the claimed invention instead of the required combination of the teaching of the references. A statement regarding routine ranges is improper when the cited references, when combined, fails to teach each of the claimed elements, or worse teaches away from the use of key elements.

Applicants' claims are produced through the cited combination of prior art by ignoring the specific teachings of the references and using the Applicants' specification as a template in contradiction of the references. Applicants respectfully request reconsideration and removal of the obviousness rejection of claims 23-25, 27-28 and 33.

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lutz et al `104 in view of Nakahara et al `253, and Kakiuchi et al `142 further in view of Umezawa et al `885. The combination of references fails to teach each and every limitation of Applicants' claim 26. The addition of Umezawa fails to address the shortfall of adding a high specific gravity to the body of a thread, which is not addressed in the other references.

Regardless, in light of the amendment to claim 23, the cited combination of Lutz with Nakahara, Kakiuchi et al `142 further in view of Umezawa et al `885, either singly or in combination fails to teach each and every element of claim

26. Applicants respectfully requests reconsideration and removal of the obviousness rejection of claim 26.

Claims 29-32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lutz et al `104 in view of Nakahara et al `253 and Kakiuchi et al `142 and Applicants admission. Applicants disagree that any admissions have been made in the specification regarding the prior art as alleged by the examiner. The balls as discussed by the examiner as an admission are not the applicants claimed ball, but balls of different constructions. Regardless of this point of contention regarding the Applicant purported admissions, the rejection of claims 29-32 and 34 is moot in light of the failure of the combination to teach each and every element of the rejected claims.

The Kakiuchi et al `142 patent does not disclose threads having high specific gravity fillers as properly stated by the examiner. Nakahara teaches away from the use of a thread wound ball. The cited art, even when used in combination with the Applicants' alleged admission fails to teach each and every required limitation of claims 29-32 and 34, specifically the use of high gravity fillers within the body of the thread. Applicants respectfully request reconsideration and removal of the obviousness rejections of claims 29-32 and 34.

Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lutz et al `104 in view of Kakiuchi et al

`142 and Applicants admission. Applicants disagree with the purported teachings regarding the prior art as alleged by the examiner. As discussed above the cited art does not teach the addition of high gravity fillers to the body of a thread. The balls as discussed by the examiner as an admission are not the applicants claimed ball, but balls of different constructions. Regardless of this point of contention regarding the Applicant purported admissions, the rejection of claim 35 is improper because the combination fails to teach each and every element of claim 35.

IV. Conclusion

The applicants respectfully request reconsideration and removal of all rejections of claims 1-12 and 19-36 that are clearly patentable over the prior art combinations.

Please feel free to call collect with any questions regarding this submission or any matters relating to this application.

Respectfully submitted,

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